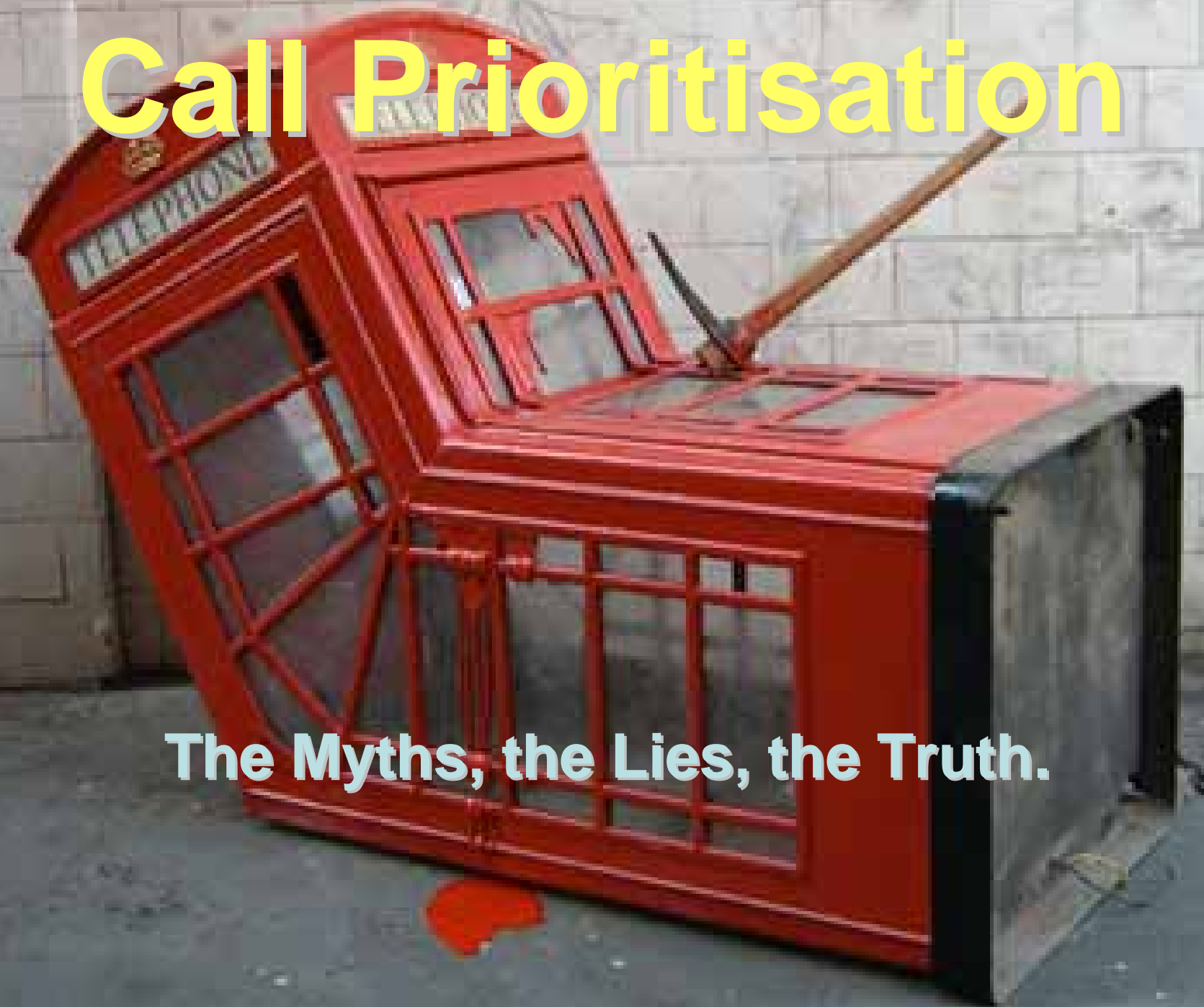




Call Prioritisation



The Myths, the Lies, the Truth.



Questions and Concerns:

- **Can organisations get “priority” access for their telecommunications during an emergency?**
- **Concerns about not being able to get calls through....**



Setting the Record Straight

- Peter Carr
- Bert Campbell
- Brigitte Theuma

Priority Access to for Emergency Services and Lifeline Utilities

Priority Access for Emergency Services & Lifelines

What do we have today

- We do not have a "Priority Access" system
- We do have "Access Class" restrictions

Access Classes 101

- The GSM/3GPP Standard allows access classes of 0 thru 15
- Regular users are assigned access class 0 thru 9
- Access Class 11 thru 15 are reserved for Emergency Services, Lifelines etc.
- Access Class 10 is reserved for 112 Emergency Calls
- Today All customers are AC 0 to 9 only.

How Does AC work

- In the event of severe network congestion (typical after/during an event) engineers can manually restrict one or more access classes
- This prevents users in those classes from making/receiving calls and TXT's
- Only Emergency 112 calls are possible (uh-oh) for users affected by the restrictions

Priority Access for Emergency Services & Lifelines

Possible Scenario

- Earthquake hits Wellington, massive Network overloading begins
- Cell broadcast enabled, advising customers to dial 112 for Emergency Services
- Access Class restriction activated for AC 0 – 4, overloading stops
- Customers with AC 0 – 4 can't make or receive calls or TXT's, they can only call 112 (we can also stop these if 111 service gets overloaded)
- Customers with AC 5 -9 are unrestricted
- Priority Customers with AC 11 to 15 are unrestricted
- After 10 minutes, the engineers release the restriction
- Network congestion is monitored to decide if additional restrictions are required..... AC 5 – 9 would be next up for the chop

- The 111 vs. 112 Emergency Services number is a major issue for us, we are working with our vendor to find a solution.
- The current reality is that our network would have to be in serious strife use access class restrictions

Priority Access for Emergency Services & Lifelines

The Future

- There is a feature available from our vendor that does allow priority service
- We have access to this feature, however
 - We don't fully understand the feature...yet
 - We haven't done any testing
 - We haven't decided how we should implement this
 - We haven't decided how to manage the priority connections
 - We will work with MCDEM if we conclude that we can use this feature

Call Prioritisation

Call Prioritisation : The Basics

The purpose of **priority of service** is to give priority for call establishment to some calls, under certain conditions. The service provider or network operator can give priority service calls originating from certain subscribers.

This landline service is offered only to **Emergency Services Providers (ESP)**: New Zealand Fire Service; New Zealand Police; and Ambulance Authorities. Numbers associated with the communications centres for these authorities are given a specific code which in effect prioritises the call during congestion.

If the call is transferred into another network, the call sheds its code, and is handled by that network based on that service provider's operating procedures.

FAQs

What about 111?

111 calls are prioritised across all telecommunications networks in New Zealand.

Which customers are eligible for landline priority service and how is the service arranged?

This landline service is currently only offered to Emergency Services Providers (ESPs) and it is not envisaged that this option will be made available commercially. The technology/equipment used to supply this service will not sustain additional subscribers.

Is there priority of service offered on the Cellular Network?

The CDMA cellular network was not designed to offer priority of service.

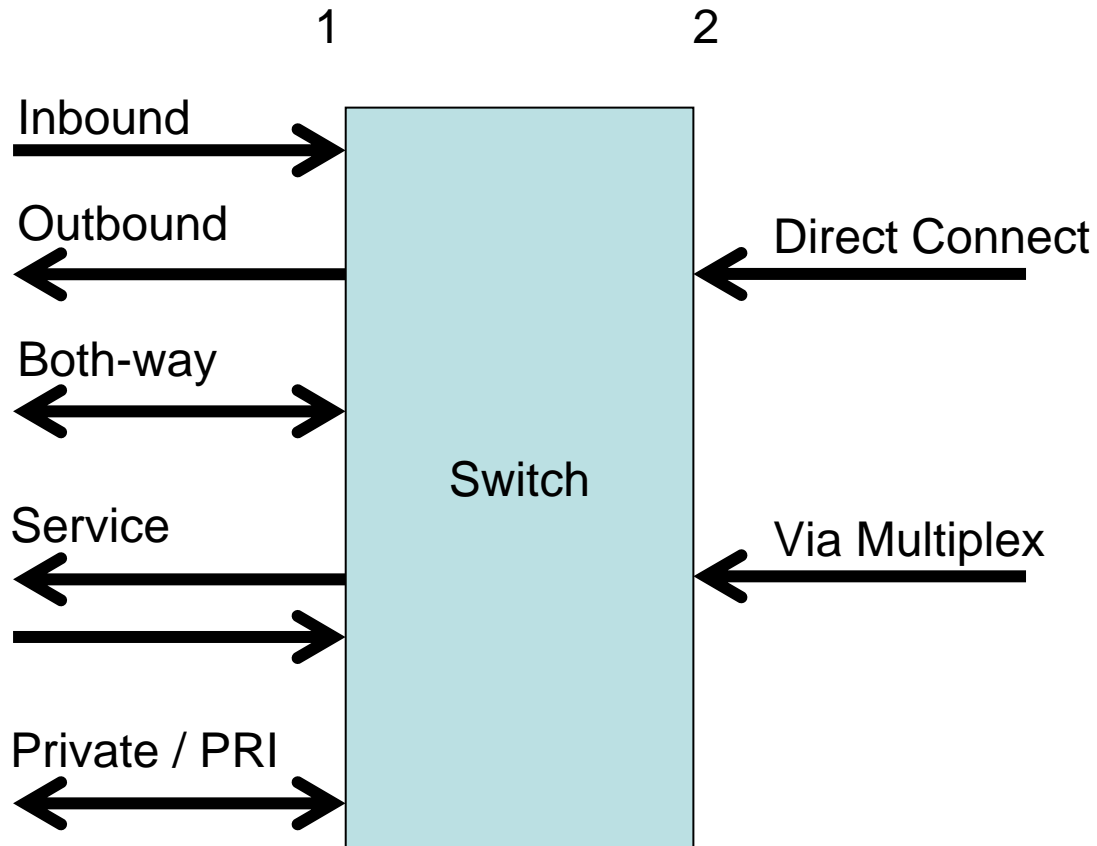
Is there priority of service offered for internet connection?

ISP's do not regularly prioritise consumer dial up or broadband service.

Enterprise customers pay for a higher grade of service, which affords greater availability.

There are two main access methods to the exchanges – as shown below

- 1) Trunk Side
- 2) Line Side



Trunk Side Controls – in brief

- Inbound is controlled at the source
 - reliant on originating end controls
 - however can block to control congestion

- Outbound controls
 - overflow – when one route congested, overflow to the next in list

 - routing by number
 - 111
 - other

 - % routing
 - x% to trunks x
 - y% to trunks y

 - trunk member selection
 - sub partition within a trunk group

Line Side Controls – in brief

- Media control
Media releases to control congestion
- Class of Service control
used to route one customer group differently to another
- Physical Line Blocking control
This will completely block dial tone

Questions?

